

41. A preparation of claim 40 wherein said aldehyde-containing polyethylene glycol has a molecular weight of between about 2kDa and 100kDa.

42. A preparation of claim 41 wherein said aldehyde-containing polyethylene glycol has a molecular weight of between about 6 kDa and 25 kDa.

43. A preparation of claim 39 wherein said preparation is comprised of at least 90% N-terminally monoPEGylated protein or analog thereof and at most 10% unPEGylated protein or analog thereof.

44. A preparation of claim 43 wherein said preparation is comprised of at least 95% N-terminally monoPEGylated protein or analog thereof and at most 5% unPEGylated protein or analog thereof.

45. A pharmaceutical composition comprising:

(a) a substantially homogeneous preparation of monoPEGylated protein or analog thereof, said monoPEGylated protein or analog thereof consisting of a polyethylene glycol moiety having a molecular weight of about 12 kDa connected to a protein or analog thereof moiety solely at the N-terminus thereof via an amine linkage; (b) fewer than 5% nonPEGylated protein or analog thereof; and (c) a pharmaceutically acceptable diluent, adjuvant or carrier.

46. A method of treating a hematopoietic disorder comprising administering a therapeutically effective dose of a preparation of any of claims 39-44.

47. A method for attaching a polyethylene glycol molecule to a protein or analog thereof, wherein said polyethylene glycol molecule has a single reactive aldehyde group, said method comprising:

(a) reacting said protein or analog thereof with said polyethylene glycol molecule under reducing alkylation conditions, at a pH sufficiently acidic to selectively activate the  $\alpha$ -amino group at the amino terminus of said protein or analog thereof; and

(b) obtaining the PEGylated protein or analog thereof and